200300173

No.



HHER WALLED SHAMES OF ANDER WA

TO ALL TO WHOM THESE; PRESENTS; SHALL COME;

PLI International Seeds

DECEMS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROJECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT (S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW THEREFORE, THIS CERTIFICATE OF PLANT WARRETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT (S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT (S) FOR THE TERM OF TWENTY AND PROM THE DATE OF THIS GRANT, SUBJECTED THE PAYMENT OF THE REQUIRED FEES AND PERIODIC WENSHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE (C) EXCLUDE OTHERS FROM SELLING THE WARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR RIVING IT, OK EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT DBY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'Galatea'

In Testimony Thereof, I have hereunto set my hand and caused the seal of the Hant Harrety Frotestion Office to be affixed at the City of Washington, D.C. this sixteenth day of July, in the year two thousand and eight.

Colmonel T. Schafe

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Peperwork Reduction Act (PRA) of 1995.

SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER				
		2. TEMPORARY DE EXPERIMENTAL	SIGNATION OR	3. VARIETY NAME
DLF-USA-International See	ds	OFI-9		Geleg Co.
(ST: 8/2H200F) 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Coun	ntry)	5. TELEPHONE (inc.	lude area code)	(B) 13/3/30 FOR OFFICIAL USE ONLY
DLF Jenks International Seeds	-		2-02-17	PVPO NUMBER
P.O. Box 216229 97348 Halsey Oregon 97321		6. FAX (include area	code)	200300173
		541-	73	FILING DATE
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation	8. IF INCORPORA STATE OF INCO			2/21/2003
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN TH	<i>()</i>	•		FILING AND EXAMINATION FEES:
175 West H Street P. Box 216229 Albany, Oregon 97321 Halsey (BT: 8/24/2007)	- •	L.Florence		E S 2,705.00 R DATE 2/21/2003 CERTIFICATION FEE: \$ 768.00 DATE 5/13/2008
11. TELEPHONE (Include area code) 12. FAX (Include area code)				P KIND (Common Name)
(et: \$/24/2004) 54/~74/8	t cla	uss@inUseed.com	ta	ll fescue
15. GENUS AND SPÉCIES NAME OF CROP Festuca arundinacea	_	MILY NAME (Botanical) OC Clae	17. IS TI HYBI	HE VARIETY A FIRST GENERATION RID?
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Foliow reverse) a.	instructions on	YES (If "yes", answer itel and 21 below) 20. DOES THE OWNER SPECIFY THAT VARIETY BE LIMITED AS TO NUMB	83(a) of the Plant V ms 20 SEED OF THIS ER OF CLASSES?	ARIETY BE SOLD AS A CLASS OF feriety Protection Act) NO (If "no", go to item 22) YES NO REGISTERED CERTIFIED
Voucher Sample (2.500 viable untreated seeds or, for tuber propagate verification that tissue culture will be deposited and maintained in an expository) g. Filling and Examination Fee (\$2,705), made payable to "Treasurer of to States" (Mail to the Plant Variety Protection Office)	approved public	21. DOES THE OWNER SPECIFY THAT VARIETY BE LIMITED AS TO NUMB IF YES, SPECIFY THE NUMBER 1,2,3, etc. (If additional explanation is necessary.	ER OF GENERATION	REGISTERED CERTIFIED
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRII FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USE OTHER COUNTRIES? YES INO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indic	RANSFER. OR USE	23. IS THE VARIETY OR ANY COMPON- PROPERTY RIGHT (PLANT BREEDE YES IF YES, PLEASE GIVE COUNTRY, DA REFERENCE NUMBER. (Please use	ATE OF FILING OR	NO ISSUANCE AND ASSIGNED
24. The owners declare that a viable sample of basic seed of the variety will be furnifor a tuber propagated variety a tissue culture will be deposited in a public reposition and the undersigned owner(s) is(are) the owner of this sexually reproduced or tuber and is entitled to protection under the provisions of Section 42 of the Plant Variet Owner(s) is(are) informed that false representation herein can jeopardize protect	propagated plant varie ly Protection Act.	ety, and believe(s) that the variety is new, disti		
SIGNATURE DE OWNER Laus les Mei	uell	SIGNATURE OF OWNER SIGNATURE OF OWNER	PIAGEN	Stewell
NAME (Please print or type) CLAUS SAAS		NAME (Please print or type) GERALO P.	New	ELL
CAPACITY OR TITLE MGY DFF - TENKS 8T-476/07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0.	420/03	CAPACITY OR TITLE FIELD PRODUCTOR	r Uçı	DATE 3/20/0 3 information collection burden statement)

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320 filing fee and \$2,385 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

> **Plant Variety Protection Office** Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a. Give:

- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

First sale of Galatea : tall fescue was in September of 2002

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed.htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gethering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual crientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and

TDD). USDA is an equal opportunity provider and employer.

S&T-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (04-01) which is obsolete.

EXHIBIT A. Origin and Breeding History of Galatea.

(OFI-951) tall fescue.

(501:12/3/2007)

OFI-951 was developed in 1995 at Olsen-Fennell Seeds, Inc. (OFI) in Salem, Oregon. The population is derived from nine parental clones. Parental clones were selected from two populations at OFI.

Clones 1-5: Selections from QS-RH2, an experimental turf variety created in 1990 by Quality Seeds, Inc. This population's parentage included selections from Bonanza, Carefree, Jaguar, Rebel, and selections collected in Kentucky and California from old turf of unknown pedigrees. Seed from this population was entered into turf trials sown in Southern Illinois in 1992. In 1993, plugs were pulled from one of the plots sown with QS-RH2 and transported to Salem, Oregon where they were vegetatively propagated and placed into a space planted breeder block. The five clones selected from this block all featured a narrow leaf width, reduced crown height and a very upright growth habit.

Clones 6-9: Selections from QS-ST2, an experimental variety created by Quality Seeds, Inc. The parentage of this population consisted of selections made from old turf areas in Kentucky, Illinois and Indiana. The parentage of this population is unknown. This population featured dark green color, reduced crown height and short moderately wide leaf blades.

The above 9 clones were moved to an isolated crossing block in 1993 and were allowed to cross-pollinate in the summer of 1994. Seed from these clones were bulked evenly by weight and labeled OFI-RH, syn.1. Shortly after seed harvest in 1994, approximately 1400 plants were established from the OFI-RH seed, in the greenhouse in Salem, Oregon. Plants were continually screened, prior to transplanting, for dark green color, reduced growth habit and dark green color. In the spring of 1995, approximately 1000 plants were transplanted. These plants were backcrossed with vegetative clones derived from two of the original parental clones selected from QS-ST2. These two particular parents featured an extremely dark green color. The vegetative clones and the progeny of OFI-RH were planted in alternating rows to ensure even pollination (ie, veg. clone#1, OFI-RH, veg. clone#2, OFI-RH,). In the summer of 1996, seed was harvested only from the OFI-RH rows. This seed was bulked and subsequently renamed OFI-951, syn 2 and was considered the breeder seed of OFI-951. The seed from this population was thinly drilled in a 0.75 acre block in the fall of 1996. Throughout the growing season, this population was continually rouged for uniformity. Resulting foundation seed from this material was harvested in both 1997 and 1998. In the spring of 2001, foundation seed of OFI-951 was planted for the production of commercial seed.

EXHIBIT A. Con't.

Statement of Uniformity and Stability

The actual breeding process of Galatea turf type, tall fescue was done by OFI and was subsequently purchased by DLF-Jenks (DLF International Seeds). While personally not the breeder of Galatea, it is the opinion of DLF after investigation of breeding records concerning the selection for uniformity as well as discussions with DLF-Jenks fieldmen who have observed this variety during foundation and commercial production, that Galatea tall fescue is very uniform and genetically stabile in its characteristics. There have been no obvious variants observed during this time to the present.

Statement of Distinctness

Galatea tall fescue (*Festuca arundinacea*) is a cool-season bunchgrass developed for use in turf.

Galatea is most similar to the variety Bonanza. Galatea differs from Bonanza in characteristics including, but not necessarily limited to the following:

- 1. Galatea has a significantly shorter mature plant height than Bonanza when grown in western Oregon (74.2 cm vs. 95.1 cm) (see Table 10).
- 2. Galatea has a significantly shorter flag leaf height than Bonanza when grown in western Oregon (30.1 cm vs. 42.2 cm) (see Table 12).
- 3. Galatea has a significantly shorter panicle length than Bonanza when grown in western Oregon (13.5 cm vs. 20.2 cm) (see Table 16).

EXHIBIT C (TALL & MEADOW FESCUES)

U.S. DEPARTMENT OF AGRICULTURE PLANT VARIETY PROTECTION OFFICE, AMS, USDA NATIONAL AGRICULTURAL LIBRARY Bidg., Rm. 500 10301 BALTIMORE Bivd. BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY TALL & MEADOW FESCUES (Festuca spp.)

•		
NAME OF APPLICANT(S)	TEMPORARY DESIGNAT	
DLF- Jenks International Seeds (BT: 8/27/2007)	 OFI-951	(BT: 12/2/2007)
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)	······································	FOR OFFICIAL USE ONLY
PO Box 216-229		PVPO NUMBER
Po Box 216 229 Albany, or 97321 97348		
		200300173
(BT: 8/ 27/2007)		
Place the appropriate number that describes the varietal characteristic of 089). Characteristics described, including numerical measurements, shou for SPACED PLANTS. Royal Horticultural Society or any recognized co an asterisk * are characteristics which should be recorded.	ld represent those that are typ	ical for the variety. Measured data should be
1. SPECIES: (With comparison varieties, use varieties within the speci	ies of the application variety)
V 1 = E annu dinggan (Pall) Trust Trus		•
X = F. arundinacea (Tall) Turf Ty	nez	
· · · · · · · · · · · · · · · · · · ·		= Arid 6 = Rebel II 1 = Crewcut 12 = Bonsai
Forage 7	Types	
00 17. 1 0101 17.	00 T) 00 12	
20 = Kennucky 3121 = Martin 24 = Kenhy 25 = AU Triumph	22 = Forager 23 = Moza 26 = Fawn 2	rk 7 = Cajun
2 = F. pratensis (Meadow)	•	
30 = Admira 31 = Beaumont 32 = Con	ntessa 33 = Ensign 3	4 = Trader
2. CYTOLOGY:	——————————————————————————————————————	
42 Chromosome Number		
. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)		
Transition Zone 2 West 0 Northeast	Other (Specify):	
4. MATURITY: (Date First Headed, 10% of Panicle Emergence)		April 1988 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 -
6 Maturity Class 1 = Very early () 2 = AU Triumph 6 = Bonanza 7 = Late (Silverad		= K31, Kenhy 5 = Medium (Rebel) = Very late
Date Headed May 29 Location wes	tern Oregon	
4 Days earlier than 7	2	
Maturity same as4 Comparison Variety		
7 Days later than 1		

	ATURE PLANT HEIGHT CM: (Average of 100 culms * INT a crown to top of panicle, if panicle is nodding, straighten)	ERNODE LENGTH CM: (First internode subtendi	ng the flag	; leaf)	
	7 4.2 cm Height	3 9.8 cm Internode le	ength	200300	173
* ***************	1 2.8 cm shorter than 10	9.8 cm shorter than	6_		
•	Height same as Bingo Comparison Variety	Length same as	<u>10</u>	Comparison variety	
	9.4 cm taller than 12	cm longer than	<u>N/</u> A		
+ HE	EIGHT AT EAR EMERGENCE CM: (Flag leaf height from cr	own to flag leaf node)			
	3 0.1 cm Height			•	
	8.2 cm shorter than Houndog 5				
	Height same as N/A Comparison Variety				
	4.9 cm taller than 12				
* 5. GI	ROWTH HABIT: (Mature Plants)				
	8 1 = Prostrate () 3 = Semiprostra 7 = Semierect (Rebel) 9 = Erect (Mini		rizontal ()	
* 7. RI	HZOMES (Psuedc):				
	mm Length $\frac{X}{1}$ = Absent () 2 = Ra	are (Rebel) 3 = Co	mmon ()	
* 8. LE	EAF BLADE: (Tiller leaves/ turf color)				
		edium light green () ery dark green ()	5 = Gre	en ()	
	*4 Anthocyanin: 1 = Absent () 9 = Pro	-			
	*1 Basal Hairs: I = Absent () 9 = Present (
	*5 Margins: 1 = Smooth () 5 = Se		9 = Ro	igh()	
	*6 Width Class: 1 = Very coarse () 3 = Coarse (7 = Fine () 9 = Ve) 5 = Medium (ery Fine ())		
* TILL	ER LEAF LENGTH CM: (First leaf subtending the flag leaf)	* TILLER LEA	F WIDTI	I MM:	
-	1 4. 7 cm Tiller Leaf Length	7.2 mm Tille	r Leaf Wi	dth	
	7. 1 cm shorter than 4	<u>1 ,9</u> mm narro	wer than	4	
	Length same as Bingo Comparison Variety	Width same as		11 Comparison vari	ety
	<u>5.0</u> cm longer than <u>12</u>	1.6 mm wide	r than	12	

8. LEAF BLADE: (continued)				2002000
FLAG LEAF LENGTH CM:		FLAG	LEAF WIDTH MI	.200300173
1 1.8 cm Flag Leaf Le	ength	<u>5.8</u> r	nm Flag Leaf Widt	h
3. 2 cm shorter than	<u>11</u>	<u>1.3</u> n	nm narrower than	4
Length same as	11 Comparison Variet	ty Width	same as	10 Comparison variety
4.3 cm longer than	12	<u>1.5</u> n	nm wider than	12
* 9. LEAF SHEATH: (Basal Porti	ion)			***************************************
* 8 Anthocyanin (seedl	ting): $I = Absent (K31)$	9 = Present ())	
* 8 Auricle Hairiness:	1 = Absent ()	9 = Pre	sent ()	
* 10. PANICLE: (At seed maturity	y except where noted.)	······································		
* 6 Shape: 1 = Nan	rrow-tapering () 5	5 = Ovate ()	7 = Oblong ()	9 = Other (specify)
* 5 Type: 1 = Con	inpact (appressed) 5	5 = Intermediate ()	7 = Open ()	9 = Other (specify)
* 7 Orientation: i = Noc	dding () 9) = Brect ()		
* 6 Branch Pubescence	: 1 = Glabrous ()	9 = Pubescent (·)	
* 1 Anther Color (At an	nthesis): 1 = Yellowish Gree 4 = Purplish	en 2 = Green 5 = Reddish	3 = Bluish Green 6= Other (Specif	
* 2 Glume Color (At an	thesis): 1 = Yellowish Gree 4 = Purplish	en 2 = Green 5 = Reddish	3 = Bluish Green 6= Other (Specify	
* 1 3. 5 cm Panicle Ler	ngth (from base to tip, if nodd	ing, straighten; after anth	esis)	
4.8 cm shorter than	1			
Length same as	7 Comparison Variet	у		
cm longer than	<u>N/A</u>			
* 11. SEED: (With Lemma & Pele	ea)			
* 2 5 1 4 mg per 1000	0 seeds			
4 7 5 mg less than	4			
Weight same as	11 Comparison Variet	у	•	
mg more than	N/A		•	
PALEA: (Keels or Margins)	2 Rairs: 1 = Absen	$\mathfrak{st}()$ 5 = Sho	rt (Missouri 96)	9 = Long()
LEMMA:	3 Hairs: I = Absen	t (Kenhy) 5 = Sev	eral ()	9 = Many (Missouri 96)
6.4 mm Lemma Length	(Mature) 1	_3_ mm Lemma width		
0.8 mm shorter than	Tomahawk	mm parrov	ver than N/A	
Length same as	9 Comparison Variety	y Width same as	1	Comparison variety
0.7 mm longer than 10. PANICLE: (continued)	CIS-TF 64	mm wider	than N/A	

Character	Varieties	Rating	Character	Varieties	Rating
Leaf Width			Leaf Color	Silverado	2
Panicle Color			Panicle Shape		
Seed Size	Crewcut	2	Cold Injury		
Winter Color			Heat		

Disease

Each trial was laid out using a completely randomized design with three replications of each variety. Each replication consisted of 20 plants. Plant spacing was 1.5 feet between plants within a row and 3 feet between rows. Each trial recieved 135 pounds of nitrogen applied in the spring in a split application. The Tangent location was grown on Concord silt loam and the Shedd site was Woodburn silt loam.

^{* 15.} EXPERIMENTAL: Give a brief summary of the experimental design utilized to collect the data used on this form. Cultural conditions, number of plants measured and plant spacing must be specified.

EXHIBIT D

Additional Traits of Galatea Tall Fescue When Grown in Western Oregon

Growth Habit:

Erect (53% erect, 40% semi-erect, 7% lax)

Rhizomes:

Absent

Margins:

Semi-rough

Seedling Anthocyanin:

Present

Auricle Hariness:

Present (present on 72% of plants)

Panicle Shape:

Ovate (42% ovate, 31% oblong, 27% narrow tapering)

Panicle Type:

Intermediate

Anther Color:

Yellowish green (60% yellowish green, 27% green 13%

purplish)

Glume Color:

Green

Table 1. 2002 seed weight of tall fescue varieties. Reported as Mg per 1000 seeds.

<u>Variety</u>	Tangent	Shedd
(Br.12/3/07) Galatea	2451.4	2575.5
Tomahawk	2957.8	3662.0
KY-31	2876.9	2851.7
Bonanza	2813.4	3164.8
Rebel II	2793.1	2934.0
Shortstop	2629.2	2508.0
Silverado	2564.4	2702.4
Bingo	2546.5	2800.3
Rebel Jr.	2456.3	2073.1
Crewcut	2428.2	2611.1
Bonsai	2376.7	2259.0
Houndog 5	2361.6	2738.0
LSD (0.05)	204.5	381.8

Table 2. 2002 Palea Hair length of tall fescue reported as 1=absent to 9=long.

Variety	Tangent	Shedd
(pr: 14/3/07) Galatea	1.33	1.83
Tomahawk	1.97	2.57
KY-31	1.67	2.60
Bonanza	1.67	3.07
Rebel II	2.30	2.57
Shortstop	1.43	2.33
Silverado	1.53	2.23
Bingo	1.73	2.87
Rebel Jr.	1.40	2.93
Crewcut	1.13	2.13
Bonsai	1.73	2.47
Houndog 5	1.43	2.33
LSD(0.05)	0.66	0.75

Table 3. 2002 Lemma Hair amount of tall fescue reported as 1=absent to 9=many.

<u>Variety</u>	Tangent	Shedd
BT: 19/3/107) Common Gal	atea. 2.07	2.80
Tomahawk	2.47	3.20
KY-31	2.00	4.27
Bonanza	3.07	3.60
Rebel II	3.07	3.60
Shortstop	2.37	3.23
Silverado	2.03	3.00
Bingo	2.70	3.90
Rebel Jr.	2.17	2.97
Crewcut	1.80	3.60
Bonsai	2.27	3.47
Houndog 5	3.23	3.60
LSD(0.05)	0.81	0.66

Table 4. 2002 Lemma Length measurements of tall fescue, reported in mm.

	Variety	Tangent	Shedd
(Br:12/3/107) @	Galatea	6.49	6.23
	Tomahawk	7.15	7.21
•	KY-31	6.09	5.98
•	Bonanza	6.74	7.23
	Rebel II	6.51	6.30
	Shortstop	6.27	6.44
	Silverado	6.87	6.61
	Bingo	6.23	6.53
	Rebel Jr.	6.44	6.25
•	Crewcut	6.58	6.62
	Bonsai	6.76	6.81
	Houndog 5	6.38	6.64
	LSD(0.05)	0.43	0.56

Table 5. 2002 Lemma Width measurements of tall fescue varieties, reported in mm.

	Variety	Tangent	Shedd
हिता १४/३/२००१	Galatea	1.36	1.31
	Tomahawk	1.46	1.53
	KY-31	1.33	1.37
	Bonanza	1.45	1.70
•	Rebel II	1.46	1.43
	Shortstop	1.39	1.43
•	Silverado	1.46	1.49
	Bingo	1.41	1.44
	Rebel Jr.	1.37	1.44
	Crewcut	1.37	1.46
•	Bonsai	1.39	1.44
	Houndog 5	1.39	1.38
	LSD(0.05)	0.09	0.13

Table 6. 2002 Awn Length measurements of tall fescue varieties reported in mm.

<u>Variety</u>	Tangent	Shedd
(BR12/3/107)	alatea 1.13	0.80
Tomahawk	0.70	0.85
KY-31	0.71	0.70
Bonanza	0.73	0.85
Rebel II	0.67	0.98
Shortstop	0.92	0.89
Silverado	1.14	0.95
Bingo	0.95	1.04
Rebel Jr.	1.17	0.92
Crewcut	0.86	1.24
Bonsai	0.89	1.01
Houndog 5	0.61	1.05
LSD(0.05)	0.37	0.28

Table 7. heading dates in Julian days of tall fescue varieties grown near Tangent and Shedd, Oregon in 2002.

<u>Variety</u>	Tangent	Shedd
(BT:1a/3/107) Galatea	149.9	147.8
Tomahawk	143.5	143.6
KY-31	142.4	142.1
Bonanza	150.9	148.3
Rebel II	147.6	147.5
Shortstop	153.9	151.7
Silverado	150.8	151.2
Bingo	146.2	145.3
Rebel Jr.	147.6	147.5
Crewcut	148.7	148.1
Bonsai	154.9	152.8
Houndog 5	147.8	147.5
LSD(0.05)	2.0	2.1

Table 8.

2002 Panicle Traits of Tall Fescue Varieties Grown Near Tangent and Shedd, Oregon

·				% (of Plants	With
		of Plants		Pa	nicle Brai	nch
	Erect Panicles		Pubescence		ce	
NAME	Tangent	Shedd	Average		Shedd	Average
TF 64	100.00	100.00	100.00	32.67	18.33	25.50
Bingo	100,00	82.00	91.00	59.00	30.67	44.84
Rebel Jr.	88.00	68.33	78.17	62.33	47.67	55.00
Bonsai	86.67	87.67	87.17	43,33	25.00	34.17
Nini Mustang	83.33	47.67	65.50	61.33	29.33	45.33
(BEI 19/3/10) Shortstop Galatea	67.67	58.00	62.84	54.67	48.67	51.67
AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	<u>64.00</u>	82.33	73.17	68.33	46.67	57.50
Houndog 5	53.00	51.67	52.34	38.67	17.33	28.00
Bonanza	52.67	20.67	36.67	59.33	52.33	55.83
Silverado	48.33	67.00	57.67	81.00	39.67	60.34
Tomahawk	39.67	57.67	48.67	62.33	58.67	60.50
Crewcut	39.67	53.33	46.50	45.67	46.67	46.17
K\$Y-31	34.67	24.67	29.67	52.33	30.33	41,33
Rebei II	30.67	36.00	33.34	52.33	39.33	45.83
LSD @ 0.05	17.99	17.37		19,86	15.86	

Table 9. 2002 Canopy Leaf Length of tall fescue varieties reported in cm.

Var	riety	Tangent	Shedd
(37:13/3/G) (33		alatea 25.56	15.35
Ton	nahawk 💆	31.56	25.33
KY-	-31	41.26	25.94
Bon	ianza	33.24	30.01
Reb	el II	34.10	23.87
Sho	rtstop	21.86	17.79
Silv	erado	29.24	16.51
Bing	go	22.24	16.54
Reb	el Jr.	24.21	21.52
Crev	weut	28.84	20.09
Bon	sai	15.52	9.43
Hou	ndog 5	27.35	18.58
LSD	0(0.05)	3.20	2.06

Table 10. 2002 tall fescue plant height measurements reported in cm.

	<u>Variety</u>	Tangent	Shedd
637:13/3/6		Galabea, 82.14	66.32
	Tomahawk	99.83	87.51
	KY-31	117.90	96.46
	Bonanza	98.12	91.98
. •	Rebel II	109.73	91.13
	Shortstop	81.89	77.73
	Silverado	90.33	65.40
	Bingo	79.40	69.40
•	Rebel Jr.	91.09	86.85
	Crewcut	99.64	82.96
	Bonsai	75.61	53.96
	Houndog 5	97.59	77.67
	LSD(0.05)	5.60	3.56

Table 11. 2002 tall fescue internode length measurements reported in cm.

<u>Variety</u>	Tangent	Shedd
(81:19/3/107) Gala	ea 43.33	36.34
Tomahawk	47.05	42.95
KY-31	56.67	43.43
Bonanza	51.02	39.57
Rebel II	55.37	43.89
Shortstop	36.82	41.05
Silverado	43.37	34.09
Bingo	40.76	34.19
Rebel Jr.	36.74	35.22
Crewcut	45.59	36.66
Bonsai	39.78	29.45
Houndog 5	46.33	38.02
LSD(0.05)	5.55	5.09

Table 12. 2002 tall fescue flag leaf height measurements reported in cm.

Variety	Tangent	Shedd
(or: 12/3/2007)	Galate 33.54	26.56
Tomahawk	37.31	41.66
KY-31	55.10	46.10
Bonanza	46.26	38.10
Rebel II	47.70	46.10
Shortstop	37.54	37.01
Silverado	34.99	32.29
Bingo	32.75	33.99
Rebel Jr.	35.39	31.54
Crewcut	40.87	29.40
Bonsai	28.22	22.12
Houndog 5	43.53	33.08
LSD (0.05)	5.19	4.13

Table 13. 2002 tall fescue flag leaf length measurements reported in cm.

<u>Variety</u>	Tangent	Shedd
(BT:12/3/107) Galate	13.31	10.26
Tomahawk	15.15	10.97
KY-31	15.52	14.45
Bonanza	18.73	19.53
Rebel II	16.00	15.72
Shortstop	12.80	15.08
Silverado	14.52	10.41
Bingo	10.99	10.49
Rebel Jr.	14.95	15.69
Crewcut	14.05	10.59
Bonsai	8.69	6.24
Houndog 5	14.08	12.58
*		•
LSD(0.05)	1.93	2.33

Table 14. 2002 tall fescue flag leaf width measurements measured in mm.

Variety	Tangent	Shedd
(BT:12/3/107) Galatea	. 6.53	5.07
Tomahawk	5.99	4.69
KY-31	7.04	5.34
Bonanza	8.03	6.06
Rebel II	6.49	5.17
Shortstop	7.81	5.06
Silverado	7.18	5.41
Bingo	5.81	4.97
Rebel Jr.	6.79	5.57
Crewcut	7.21	5.43
Bonsai	5.41	3.08
Houndog 5	6.67	4.93
LSD (0.05)	0.79	0.90

Table 15. 2002 tall fescue tiller leaf length measurements measured in cm.

4 4	Variety	Tangent	Shedd
(BT: 12/3/2007)	Galatea	16.22	13.18
	Tomahawk	18.61	17.05
	KY-31	21.45	20.56
	Bonanza	23.10	20.44
•	Rebel II	20.17	21.04
	Shortstop	16.85	15.56
	Silverado	17.37	14.56
	Bingo	14.72	15.75
	Rebel Jr.	19.05	16.26
	Crewcut	26.71	14.46
	Bonsai	10.56	8.69
	Houndog 5	17.76	15.15
	LSD (0.05)	4.32	2.55

Table 16. 2002 tall fescue panicle length measurements, measured in cm.

(BT: 12/3/107)

<u>Variety</u>	Tangent	Shedd
Galatea	14.71	12.37
Tomahawk	22.45	19.68
KY-31	17.38	19.16
Bonanza	23.16	17.13
Rebel II	21.34	20.29
Shortstop	15.00	12.26
Silverado	20.29	20.27
Bingo	18.33	14.99
Rebel Jr.	25.00	21.07
Crewcut	21.58	19.78
Bonsai	17.58	16.28
Houndog 5	26.97	25.72
LSD (0.05)	2.49	2.83

Table 17. 2002 tiller leaf width measurements of tall fescue. Reported in mm.

6.81 5.67
5.67
8.34
6.61
7.67
5.67
6.63
7.34
8.06
5.92
4.68
6.33
0.98

Table 18. 2002 tall fescue leaf color ratings reported as 1=lt.green and 9=dark green.

	Variety	Tangent	Shedd
181:12/3/107)	Southern Comfort Galatea	5.79	5.80
	Tomahawk	5.95	5.67
	KY-31	4.17	2.68
	Bonanza	4.80	4.42
	Rebel II	5.30	5.25
,	Shortstop	5.80	4.64
	Silverado	6.02	5.45
	Bingo	6.32	6.16
4	Rebel Jr.	5.51	5.23
	Crewcut	6.63	5.02
	Bonsai	6.53	6.49
	Houndog 5	5.74	4.64
. •	LSD (0.05)	0.50	0.61

Table 19. 2002 tall fescue anthocyanin ratings measured as % plants with anthocyanin.

<u>Variety</u>	Tangent	Shedd
Galatea	30.33	41.00
Tomahawk	38.33	52.33
KY-31	74.33	52.33
Bonanza	48.33	60.00
Rebel II	40.00	60.67
Shortstop	19.00	26.67
Silverado	17.67	20.00
Bingo	14.67	29.00
Rebel Jr.	33.00	59.00
Crewcut	31.00	54.33
Bonsai	10.00	8.33
Houndog 5	37.00	27.67
LSD (0.05)	23.18	15.01

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USA	7. PVPO NUMBER	A 200 000	
	#200300		
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10. Is the applicant the original owner?	NO If no, please answer one o	of the following:	
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YES	NO If no, give name of countr		
b. If the original rights to variety were owned by a company(les), YES	NO If no, give name of country		
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3. If the applicant is an owner who is not the original owner, both the or	riginal owner and the applicant must mee	et one of the above criteria.	
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> U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

EXHIBIT F DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S) DLF International Seeds	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) PO Box 229/175 West H Street Halsey, OR 97348 USA	TEMPORARY OR EXPERIMENTAL DESIGNATION OF 1 - 95/ VARIETY NAME Galatea
NAME OF OWNER REPRESENTATIVE (S) Stephen W. Johnson	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) PO Box 229/175 West H Street Halsey, OR 97348 USA	PVPO NUMBER #200300173

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.